



Pervasive Asthma Monitoring System is a comprehensive solution to monitor the health of asthma patients after they have left the hospital. PAMS utilizes commonly available inexpensive portable music players to transfer the patient's respiratory data to their healthcare professionals on a 24*7 basis. By integrating this new technology with the existing methods of monitoring asthma PAMS results in a system which is guaranteed to result in decreased episodes of asthma attacks.



ALL IN ONE SYSTEM


Spirimetry

Peak Flow Metry

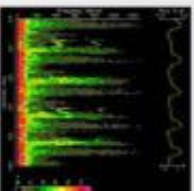
Wheeze

Adverse Effects


HOW DOES IT WORK



The patient wears a mp3 player around his / her neck which constantly records breath sounds. This data is then transferred using GSM or Bluetooth to a computer.



Breath sounds are analyzed using a voice analysis algorithm which identifies wheeze frequencies from the background noise.



A mobile phone is programmed to record expected adverse effects to medication on command. This data is then sent to the hospital end using GSM to be represented on the hospital interface



All incoming data is displayed on an easy to use and intuitive hospital interface from where it is constantly monitored.


PATIENT

Decrease in hospital visits
Decrease in asthma attacks
Continuous medical advice


FAMILY

24 * 7 monitoring
Peace of mind
Decrease in medical expenses


HEALTHCARE PROFESSIONAL

Patient triage
Increase in patient compliance
Better patient outcomes


HOSPITAL

Loyal patient base
Continuous contact with patients
Increase in number of patients


NATION

Conserve national resources
Decrease in absenteeism
Pervasive health



THE WOW FACTOR

MP3 players to
monitor asthma
patients 24*7

Concept is proven
to reduce
ED visits

Easy to use
hospital
interface



Georgia Institute of Technology

Fall 2007

Health Systems Institute

TEAM FREE RADICALS



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Pervasive Asthma Monitoring System



▶ **PAMS**